Title (en)

METHOD AND APPARATUSES FOR REGULATING THE OUTPUT VOLTAGE OF A VOLTAGE REGULATOR

Title (de)

VERFAHREN UND VORRICHTUNGEN ZUR REGELUNG DER AUSGANGSSPANNUNG EINES SPANNUNGSREGLERS

Title (fr)

PROCÉDÉ ET DISPOSITIFS POUR RÉGULER LA TENSION DE SORTIE D'UN RÉGULATEUR DE TENSION

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2020233751A1] The invention relates to a method for regulating the output voltage (V0) at the output (Vout) of a voltage regulator (VREG) and to an associated apparatus. The method is used to supply an illumination apparatus having a plurality of, but at least two, integrated circuits (IC1, IC2), each having at least one LED group (LED1a, LED1b, LED2), by means of a respective current source (LED DRV) associated with this LED group. The method comprises the first step of generating a supply voltage (V0) by means of the voltage regulator (VREG), the second step of setting an LED group current (ILED1a, ILED1b, ILED2) through the LED groups (LED1a, LED1b, LED2) by means of a respective one of these current sources (LED DRV), the third step of capturing the voltage drops across these current sources (LED DRV) as a respective voltage drop value, the fourth step of selecting a respective voltage drop value of each integrated circuit (IC1, IC2) as a characterizing voltage drop value of this integrated circuit (IC1, IC2), the fifth step of generating a regulation value signal at a node (K1, K2) of this respective integrated circuit (IC1, IC2) according to this characterizing voltage drop value, the sixth step of reducing the magnitude of a regulation voltage (VR) if the magnitude of the regulation voltage (VR) is greater than the magnitude of the regulation value signal at the node (K1, K2) of this respective integrated circuit (IC1, IC2), and the last step of regulating the output voltage (V0) on the basis of the regulation voltage (VR) and/or a regulation bus voltage (VRB) derived from the regulation voltage (VR).

IPC 8 full level

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